

D6103-003

Work Order ID 148618

Wednesday, July 06, 2016 8:35:05 AM

148618

Page 1

Item ID: D3488-042

Accept

N900040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: Blade Fitting RH

Start Date: 6/21/2016 Start Qty: 6.00

6
*6*7

Cust Item ID:

Required Date: 7/5/2016 Req'd Qty: 6.00

Customer:

Reference:

Approvals:

Process Plan:

DAS
21
9-89

Date: JUL 06 2016

Tooling:

Date:

Run Start *NR1*

QC:

Date:

SPC (Y/N):

Date:

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D3488	Rev B								
DSK 101	REV D								
100	DOOSAN LATHE	0.00							
100									
Doosan	Memo	0.37							
Doosan Lathe	1-Turn as per Dwg DSK 101 & Folio FA625								
	2-Deburr								
110	QC2- Inspect parts off machine FAI/FAIB	0.00							
110									
QC	Memo	0.01							
Quality Control									

DAS
45
9-89

2016-7-11

DAS
45
9-89

2016-7-11

P70 →

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: REJ Date: SEP 08 2016Work Order update only ☐

Work Order: <u>148618</u> Part No. <u>03488-042</u> NCR No. <u>16-6008</u>	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☒ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☒ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date: <u>16/7/14</u>	Step #: <u>100</u>	QTY Effective: <u>①</u>		MRB (QSI042) Approval <u>DAS</u> <u>12</u> <u>9-89</u> <u>16/7/14</u>	
Description Work Order Deviation		Disposition		Completed By	
<u>dimension 2,620 is at 2,582</u> <u>-U</u>		<u>Acceptable.</u> <u>Section is not critical in bending</u>		<u>DAS</u> <u>12</u> <u>9-89</u> <u>16/7/14</u>	
				Lead hand / Supervisor Approval Verification <u>DAS</u> <u>14</u> <u>9-89</u> <u>16/07/14</u>	
				QC / QA Coordinator Approval <u>PD</u> <u>16-07-14</u>	

Root Cause		FAULT CATEGORY			
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐
Doc/Data ☐	☒ Offset/Setup	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	☒ Off-set	Drawing ☐
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐
Past Expiry Date ☐	Manufacturing Process ☐	OTHER: _____			
Misidentified ☐	Past Due ☐				

Work Order ID 148618

Wednesday, July 06, 2016 8:35:05 AM

148618

Page 2

Item ID: D3488-042 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Blade Fitting RH
Start Date: 6/21/2016 Start Qty: 6.00 ***6*** Cust Item ID:
Required Date: 7/5/2016 Req'd Qty: 6.00 ***6*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120 *120* HAAS 1 HAAS CNC vertical machine #1	HAAS CNC VERTICAL MACHINING #1 Memo 1-Machine as per Folio FA627 & Dwg D34882-Deburr	0.00 0.51				7	0		SL16-8-13
130 *130* QC Quality Control	QC2- Inspect parts off machine FAI/FAIB Memo	0.00 0.01				7	0		SL16-8-13
140 *140* QC Quality Control	QC8- Inspect parts - second check Memo	0.00 0.02				7	0		DAS 08 9-89 P.T.O.

DQA: Dut Date: 09/22/2015
 QA Closed: DELL Date: SEP 08 2015



WORK ORDER NON-CONFORMANCE / UPDATE

Work Order update only ☐

Work Order: <u>148618</u> Part No. <u>03488-042</u> NCR No. <u>16-6004</u>		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☒ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Cross tube ☐ Water Jet ☐ Engineering ☐ Machining ☒ Small Fab ☐ Prod. Eng. Coord. ☐ Quality ☐ Thermoforming ☐ Finishing ☐ Rec/Store/Packaging ☐ Other ☐ Large Fab ☐ Composite ☐ Supplier ☐					
Date: <u>16-08-17</u>		Step #: <u>120</u>		QTY Effective: <u>①</u>			MRB (QSI042) Approval DAS 9 9-89 16-08-17		
Description Work Order Deviation				Disposition				Completed By PD 16-08-17 Lead hand / Supervisor Approval Verification DAS 08 16-08-17 QC / QA Coordinator Approval DAS 9 9-89 16-08-17	
vibration marks was sand inside bore				acceptable as is no structural affect					
Root Cause Environment ☐ No Re-verification ☐ Design ☐ Operator ☐ Doc/Data ☐ Offset/Setup ☐ Equip/Tooling ☐ Supplier ☐ Handling/Pre ☐ Training ☐ Material ☐ Use for Testing ☐ Internal Transport ☒ Poor Information ☐ Tribal Knowledge ☐ Rushing ☐ LOA ☐ Product Improvement ☐ Substation ☐ Process Improvement ☒ Past Expiry Date ☐ Manufacturing Process ☒ Misidentified ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Temperature/Cure ☐ Power Loss/Surge ☐ Positioned Wrong ☐ Bending ☐ Set-up ☐ Folio/Program ☐ Outside Dimensions ☐ Centre Not Concentric ☐ BOM/Route ☐ Grain ☐ Over/Under tolerance ☐ Cracks ☐ Broken/Damage/Defect ☐ Weld ☐ Part Incorrect ☐ Crimp/Kink/Ripple/Wave ☐ Inspection Incomplete/Unqualified ☐ Wrong Stock Pulled ☐ Part Lost/Missing ☐ Cuffs ☐ Contamination ☐ Out of Sequence ☐ Part Moved ☐ Crushing ☐ Countersink ☐ Off-set ☐ Drawing ☐ Heat Treat ☐ Cut Too Short ☐ Mislabeled ☐ Finish ☐ Wave/Twist in Tube ☐ Instructions Incomplete/Unclear ☐ Fit/Function ☐ Misread ☐ Marks/Chatter ☒ Drill Holes ☐ Misaligned/off center ☐ Turning Sequence ☐							
OTHER :									

Work Order ID 148618

Wednesday, July 06, 2016 8:35:05 AM

148618

Page 3

Item ID: D3488-042

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: Blade Fitting RH

Start Date: 6/21/2016 Start Qty: 6.00

6

Cust Item ID:

Required Date: 7/5/2016 Req'd Qty: 6.00

6

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start

NR1

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
150	Chemical Conversion Coat per QSI005 4.1	0.00							
150									
HandFinish	Memo	0.08							
Hand Finishing									
160	White Gloss(Ref:4.3.5.2) per QSI005 4.3-Alum	0.00							
160									
Powdercoat	Memo	0.02							
Powder Coating	START TIME: <u>10:40</u> OVEN TEMPERATURE: <u>300°</u> FINISH TIME: <u>11:10</u>								
170	QC3- Inspect Part Finish	0.00							
170									
QC	Memo	0.01							
Quality Control									

DAS
15
9-89

x 7.13.11 - 11/16/09/06

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coor. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ <i>2A0</i> Crimp/Kink/Ripple/Wave ☐ <i>2A0</i> Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					

Work Order ID 148618

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148618

Page 4

Item ID: D3488-042 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Blade Fitting RH
Start Date: 6/21/2016 Start Qty: 6.00 ***6*** Cust Item ID:
Required Date: 7/5/2016 Req'd Qty: 6.00 ***6*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
180	HandFinishing	0.00							
180	Memo	0.07							
Hand Finish	Install Inserts as per Dwg D3488								
Hand Finishing									
190	QC5- Inspect part completeness to step on W/O	0.00							
190	Memo	0.02							
QC									
Quality Control									
200	Identify as per dwg & Stock Location: FP001	0.00							
200	Memo	0.01							
Packaging	LOCATION : FP001								
Packaging									

Handwritten notes:
- For 180: (x) 7 R# ✓, 2016 09/06 BEB.
- For 190: 7 φ 16-09-6 239
- For 200: (x) 7 R# ✓, 2016 09/06 BEB.

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition			
				Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					

Work Order ID 148618

Wednesday, July 06, 2016 8:35:05 AM

148618

Page 5

Item ID: D3488-042 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Blade Fitting RH
Start Date: 6/21/2016 Start Qty: 6.00 ***6*** Cust Item ID:
Required Date: 7/5/2016 Req'd Qty: 6.00 ***6*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
210	QC21- Final Inspection - Work Order Release	0.00							
210									
QC	Memo	0.10							
Quality Control									

DAS
21
9-89
SEP 06 2016

DAS
21
9-89
SEP 06 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition			
2AC TS 00-6 2AU TS 00-6				Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : _____					

Picklist Print

Wednesday, July 06, 2016 8:35:05 AM

Page 1

Work Order ID: 148618

148618

Parent Item: D3488-042

D3488-042

Parent Item Name: Blade Fitting RH

Start Date: 6/21/2016

Required Date: 7/5/2016

Start Qty: 6.00

Required Qty: 6.00

Comments: IPP Rev:A New Issue 06-02-28 JLM
IPP Rev:B As per Rev B 06-03-30 JLM
IPP Rev:C Now On Doosan Lathe JLM Verified BY:DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
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ALS7-1032-225	AELS8-1032-225	Purchased	No				Each	355.0000					
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AI S7-1032-225 **ALS 4-1032-225*

**M134975*

24 #28
2016/09/06 BEB.

Insert

Location

Loc Qty

Loc Code

FG

150

118520

120

m133799

30

FP001

205

m131657

16

m133799

189

D6103-003

Manufactured No

Each

12.0000

6

D6103-003

Round Billet, Aluminum

Location

Loc Qty

Loc Code

MAT043

12

145265

12

6
+1/7
DAS 45
9-89 *2015-7-10*

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																													
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval																																																										
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval																																																									
Root Cause		FAULT CATEGORY																																																															
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	Past Expiry Date ☐	Manufacturing Process ☐	OTHER :			
Misidentified ☐	Past Due ☐																																																																

DART AEROSPACE LTD		Work Order: 178618
Description: Blade Fitting, RH / Turning Detail for D3488-1/-2		Part Number: D3488-2
Inspection Dwg: D3488 / DSK101 Rev: B / D		Page 1 of 2

FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

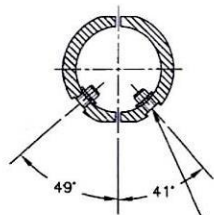
Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
Lathe Section						
Ø2.150	+/-0.005	2.150	✓		mic 2-3	OK
Ø2.780	+/-0.005	2.780	✓		"	"
Ø3.125	+/-0.010	3.125	✓		caliper	OK
Ø3.346	+/-0.010	3.3465	✓		"	"
0.125 x 45°	+/-0.010 x +/-0.1°	0.125 x 45°	✓		depth g	OK
8.000	+0.030/-0.000	8.0175	✓		Hr	31006
9.250	+/-0.010	9.251	✓		"	"
0.188	+/-0.010	0.188	✓		"	"
R0.032	+/-0.010	R.032	✓		rad g	Shop
R0.062	+/-0.010	R.062	✓		"	"
Ø0.297	+0.005/-0.001	0.301	✓		caliper	OK
Ø0.430	+/-0.010	0.433	✓		"	"
0.100	+/-0.010	0.100	✓		"	"
0.125	+/-0.010	0.124	✓ (A0)		"	"
2.620	+/-0.010	2.582	✓		"	"
3.500	+/-0.010	2.497	✓		Hr	31006
1.005	+/-0.010	1.008	✓		"	"
Ø0.484	+0.005/-0.001	0.486	✓		caliper	OK
1.180	+/-0.010	1.178	✓		"	"
3.150	+/-0.010	3.148	✓		"	"
3.070	+/-0.010	3.067	✓		Hr	31006
R0.063	+/-0.010	R0.063	✓		rad g	Shop
measured by:		DAS			checked by:	
date:		45			date:	
		2016-7-11				

DART AEROSPACE LTD		Work Order:	148618
Description: Blade Fitting, RH / Turning Detail for D3488-1/-2		Part Number:	D3488-2
Inspection Dwg: D3488 / DSK101 Rev: B / D		Page 2 of 2	

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
Milling Section						
Ø0.508	+0.006/-0.001	5085	✓		g-pin	
0.750	+/-0.010	758	✓		H-G	
1.500	+/-0.010	1.500	✓		VERU	2L-10
11.18	+/-0.030	11.170	✓		H-G	
R0.062	+/-0.010	R.062	✓		R-G	
0.125	+/-0.010	122	✓		VERU	
0.590	+/-0.010	591	✓		H-G	
0.793	+/-0.010	794	✓			
1.351	+/-0.010	1.357	✓		H-G	
1.317	+/-0.010	1.320	✓			
1.802	+/-0.010	1.801	✓		H-G	

Measured by:	JK	Audited by:	Da	Prototype Approval:	N/A
Date:	16-8-13	Date:	16/08/19	Date:	N/A

Rev	Date	Change	Revised by	Approved
A	06.03.31	New Issue	KJ/JLM	
B	08.09.19	Reformat P/O D3488-042	KJ/JLM	
C	08.12.02	Dimension 8.000 removed	KJ/JLM	



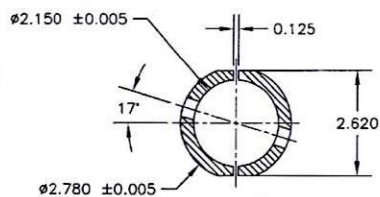
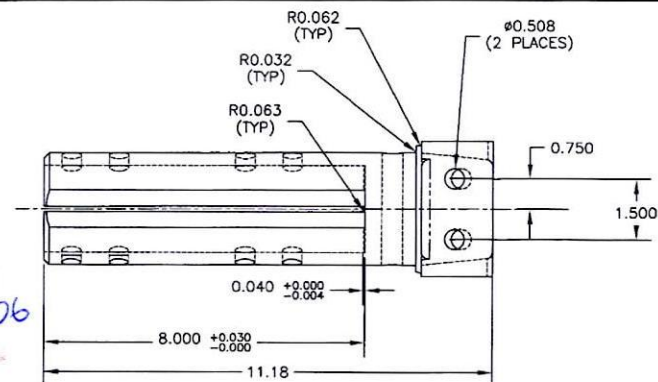
SECTION B-B

Ø0.297
C'BORE Ø0.430 x 0.100
INSTALL ALS4-1032-225 (OR AKS4-1032-225
OR ALS7-1032-225 OR AKS7-1032-225)
INSERTS AFTER FINISH
(4 PLACES)



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UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER

NO. 148618 MJS
10-07-06



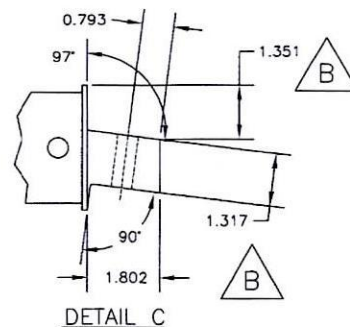
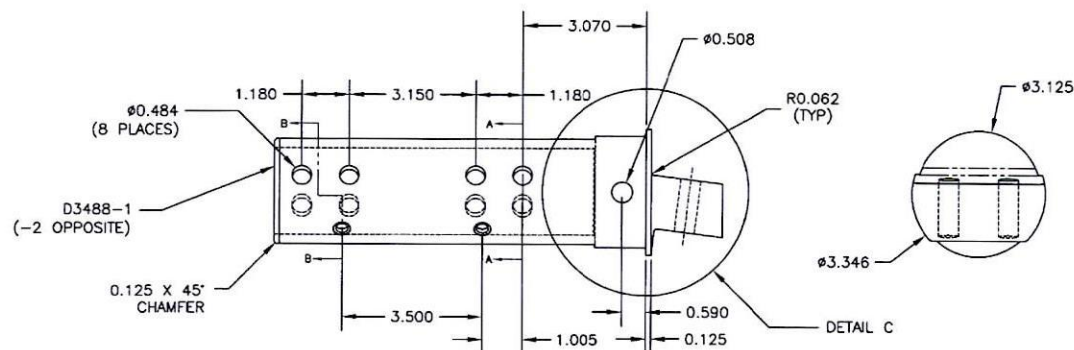
SECTION A-A

D3488-041/-042 BLADE FITTING ASSEMBLY PARTS LIST

QTY -041	QTY -042	PART NUMBER	DESCRIPTION
X		D3488-041	BLADE FITTING ASSEMBLY (LH)
	X	D3488-042	BLADE FITTING ASSEMBLY (RH)
1		D3488-1	BLADE FITTING (LH)
	1	D3488-2	BLADE FITTING (RH)
4	4	ALS4-1032-225 or AKS4-1032-225 or ALS7-1032-225 or AKS7-1032-225	INSERT

D3488-041/-042 BLADE FITTING

- MATERIAL: MAKE D3488-1/-2 FROM ALUMINUM 7075-T7351 ROUND BAR PER QQ-A-225/9 (REF. DART MATERIAL SPEC M7075T73R)
- FINISH: ACID ETCH, ALODINE PER DART QSI 005 4.1
POWDER COAT WHITE (REF 4.3.5.1) PER DART QSI 005 4.3
- BREAK UNMARKED SHARP EDGES 0.010 TO 0.020
- INSTALL INSERTS AFTER POWDER COAT
- ALL DIMENSIONS ARE IN INCHES
- TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED



D3488-041 SHOWN (D3488-042 OPPOSITE)

RELEASED
06-03-15
PER OS
ECN #734

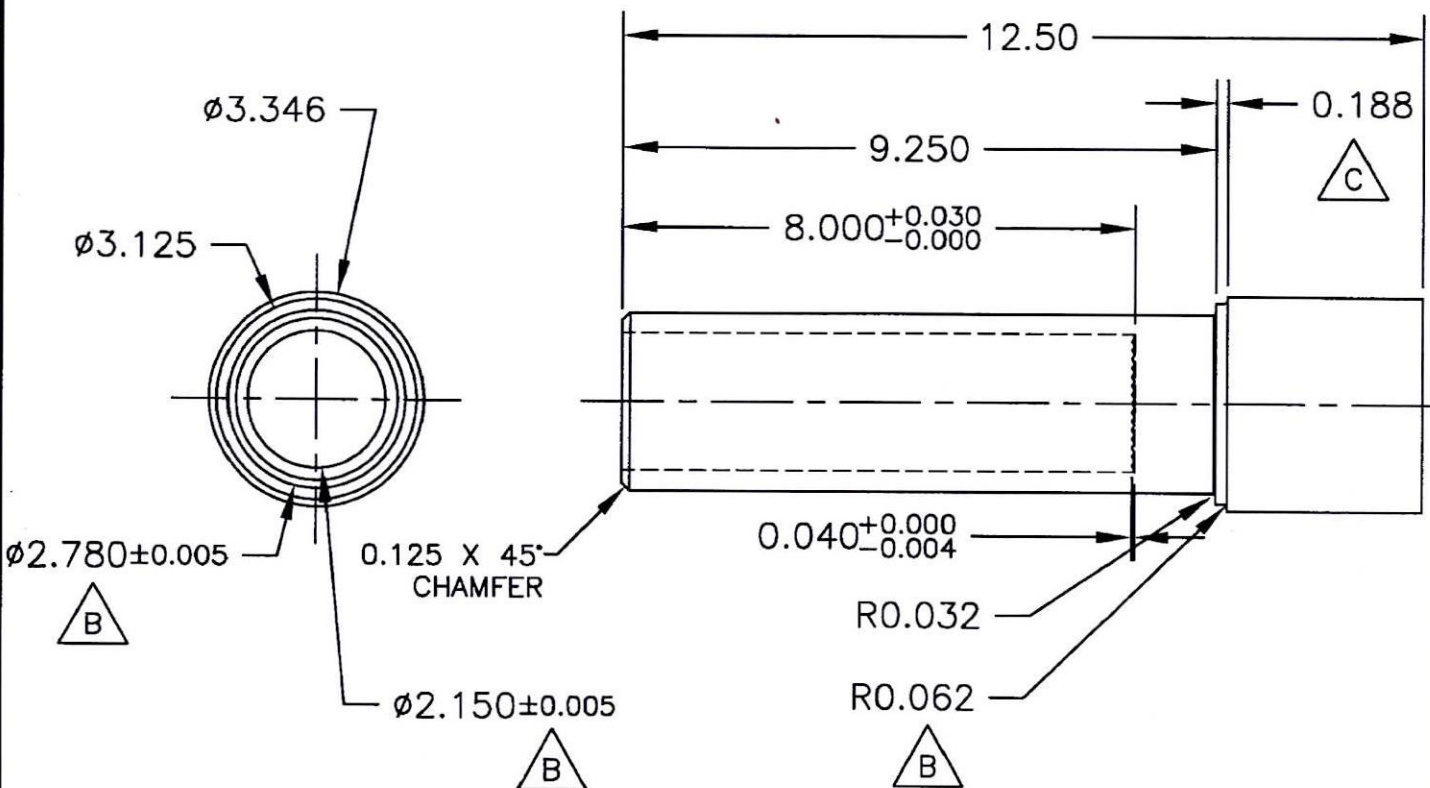
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B	06.03.15	CHANGE THICKNESS
A	05.12.20	NEW ISSUE
DESIGN	PH	DRAWN BY PH
CHECKED	PH	APPROVED
DATE	06.03.15	TITLE
		BLADE FITTING
		DART AEROSPACE USA, INC. PORT HADLOCK, MA
		DRAWING NO. D3488
		REV. B
		SHEET 1 OF 1
		SCALE 1:3

DART

DESIGN	DRAWN BY	DART AEROSPACE USA, INC.	
04	04	PORT HADLOCK, WA	
CHECKED	APPROVED	DRAWING NO.	REV. D
<i>[Signature]</i>	<i>[Signature]</i>	DSK 101	SHEET 1 OF 1
DATE		TITLE	SCALE
06.05.09		D3488-1/-2 TURNING DETAIL	1:3
A	05.12.21	NEW ISSUE	
B	06.03.02	ADD TOLERANCES AND RADIUS	
C	06.04.17	0.188 WAS 0.125	
D	06.05.09	REMOVE DIAMETER FOR CHAMFER	

**DSK 101**

- 1) MATERIAL: MAKE FROM ALUMINUM 7075-T7351 ROUND BAR PER QQ-A-225/9 (REF. DART MATERIAL SPEC M7075T73R)
- 2) FINISH: NONE
- 3) BREAK UNMARKED SHARP EDGES 0.010 TO 0.020
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED